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File# 1382 B9

FINAL PLAN OF REMEDIAL ACTION



38 Vandever Ave Site

38 Vandever Avenue
Wilmington, Delaware

April 17, 2008
DNREC Project No. DE-1382

This Revised Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) requirements to address environmental contamination at the 38 Vandever Ave Site (Site).

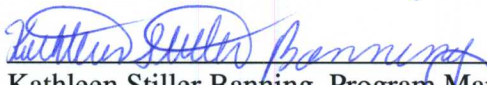
DNREC issued public notice of the Revised Proposed Plan of Remedial Action (Proposed Plan) for the Site on March 26, 2008 and opened a 20-day public comment period. The Proposed Plan is attached. There were no comments or questions from the public. Therefore, the Proposed Plan is adopted as the Final Plan.

Final Plan will consist of the following requirements:

- Issuance and implementation of a DNREC-approved Operation and Maintenance Plan for the Site to assure that all protective measures are properly maintained following site construction.
- Recording of an environmental covenant consistent with Delaware's Uniform Environmental Covenants Act (Title 7, Del. C. Chapter 79, Subtitle II) by the site owner. The covenant will include a restriction limiting property use to only non-residential purposes
- Prohibiting land-disturbing activities without prior written approval from DNREC.
- Prohibiting the installation of groundwater wells for drinking water purposes by recording that the site is located within the City of Wilmington's established Groundwater Management Zone (GMZ).

Approval:

This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.


Kathleen Stiller Banning, Program Manager II
Site Investigation and Restoration Branch

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PROPOSED PLAN OF REMEDIAL ACTION

38 Vandever Avenue Mainstream Achievement Center Site
Wilmington, New Castle County, Delaware
DNREC Project No. DE-1382



March, 2008

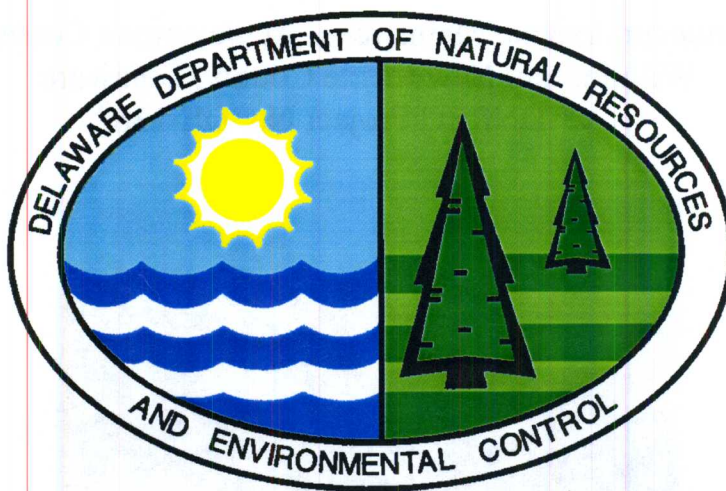
Delaware Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Site Investigation & Restoration Branch
391 Lukens Drive
New Castle, Delaware 19720

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PROPOSED PLAN OF REMEDIAL ACTION

38 Vandever Avenue Mainstream Achievement Center Site
Wilmington, New Castle County, Delaware
DNREC Project No. DE-1382



Approval:

This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

	Approved by:
James D. Werner, Director Division of Air & Waste Management	
	Date

38 Vandever Avenue Mainstream Achievement Center Site



What is the 38 Vandever Avenue Mainstream Achievement Center Site? The site is located at 38 Vandever Avenue within the city limits of Wilmington, Delaware. The site is currently unoccupied and undergoing demolition and in the past was operated as a machine shop and foundry. Kappa Mainstream Leadership Inc. plans to construct a 10,000 square foot steel framed building with the rest of the area to be paved. Kappa Mainstream Leadership, Inc. plans to provide leadership and mentoring programs. The property is depicted on Figures 1 and 2.

Tax Parcel Numbers: 26-029.10-109, 26-029.10-110, and 26.029.10-111

Address: 38 Vandever Avenue, Wilmington, Delaware 19802

Nearest major intersection: Palmer's Row and Vandever Avenue

Area: 0.3 acres

Surrounding Property: The surrounding land use is primarily residential with some commercial use.

Zoning: Commercial

Site Utilities: Water and sewer are provided to the property by the City of Wilmington

Surface water: The Brandywine Creek is located approximately 300 feet south of the property.

Topography: The site is approximately 40 feet above mean sea level and the surface generally slopes downwards south toward the Brandywine Creek.

Groundwater: Groundwater is shallow at the site and was observed in the fill material over weathered bedrock. Groundwater generally flows in a south-southeast direction towards the Brandywine Creek.

What happened at the 38 Vandever Avenue Mainstream Achievement Center Site? The site operated as a machine shop and foundry by the A.C. Layman Machine Company from approximately 1927 to 1992. A residential structure was located on the property from approximately 1884, but was demolished prior to 1951. The past industrial use of the property suggested that hazardous substances, such as metals and solvents, may have been utilized as part of the daily operations. Prior to the Brownfield Investigation, two aboveground storage tanks (ASTs) were reportedly removed from the site and one underground storage tank (UST) was abandoned in place. During the Brownfield Investigation, one unregulated AST and one diesel tank were removed from the site.

Previous assessments reported that the A.C. Layman Company used the property for the manufacture of machine rollers and shafts from approximately 1927 to 1992. Contaminants of concern (COC) typically associated with this type of business include metals, petroleum, and polynuclear aromatic hydrocarbons (PAHs). Prior to the Brownfield Investigation, two ASTs, a 275 gallon kerosene tank and a 550 gallon tank (contents unidentified), were reportedly removed from the property.

Based on a UST closure report, one 550 gallon heating oil UST was abandoned in place in the southeast portion (the loading dock area) of the building. A 1,000 gallon diesel UST (located on the northwestern portion of the property, outside the building) was tightness tested in June 1997, the results indicated that the UST passed the leakage tests.

As part of the Brownfield Investigation, a site visit indicated the presence of vent and fill pipes in the northwestern corner of the building that were most likely associated with the diesel UST. DNREC-Tank Management Branch (DNREC-TMB) performed an inspection in April 2006 and confirmed the presence of the UST. The diesel UST was removed in February 2007 by a contractor with DNREC-TMB oversight. Concentrations of residual petroleum on site were below applicable standards.

What is the environmental problem at the 38 Vandever Avenue Mainstream Achievement Center Site?

Due to the historical use of the property as a machine shop and foundry, site soils were found to contain elevated concentrations of metals and benzo(a)pyrene. Iron, manganese and heptachlor epoxide were detected in groundwater above the human health standard. However, loading calculations indicated that these contaminants are not adversely impacting the Brandywine Creek.

A Brownfield Investigation (BFI) was performed at the site in April 2006 and iron, lead, and benzo(a)pyrene were found in some soil samples exceeding the Restricted Use Uniform Risk-Based Standards (URSSs) while arsenic was detected at concentrations greater than the established State of Delaware background value for arsenic.

Iron and manganese were detected in groundwater at concentrations exceeding the Secondary Maximum Contaminant Levels (SMCL), which is based on aesthetic properties of the water, such as taste, odor, and color, and do not represent human health risks. Groundwater at the site is also impacted by heptachlor epoxide at concentrations greater than the Groundwater URSSs. Surface water loading calculations indicated that these contaminants are not adversely impacting the Brandywine Creek.

The cumulative risk to human health due to the contaminants is above DNREC's unrestricted (residential) and restricted (commercial) use standard.

What does the owner want to do at the 38 Vandever Avenue Mainstream Achievement Center Site?

Kappa Mainstream Leadership Inc. plans to demolish the current building, with the exception of the northern wall which will be retained and incorporated into the building redevelopment. Next, they plan to construct an approximately 10,000 square-foot steel-framed building. The new building will consist of slab-on-grade construction and include asphalt-paved parking areas. Upon completion, the entire site will remain completely covered by concrete slab and asphalt to eliminate exposure to contaminated soils.

What clean-up actions have been taken at the former 38 Vandever Avenue Mainstream Achievement Center Site?

Interim actions taken at this site include the demolition of the majority of the building and the removal of portions of the existing slab. Initial redevelopment plans included refurbishing the existing slab, however, the masonry contractors determined that doing so would compromise the integrity of the finished concrete slab. Therefore, removal of the existing slab and pouring of a new slab was done.

What additional clean-up actions are needed at the former 38 Vandever Avenue Mainstream Achievement Center Site?

DNREC's Proposed Plan includes limiting the site use for non-residential purposes, prohibiting land disturbing activities, compliance with a DNREC-approved Operations and Maintenance Plan, and prohibiting the use of groundwater at the site.

DNREC recommends the following remedial actions:

1. Placing an Environmental Covenant (EC), consistent with the Uniform Environmental Covenants Act (UECA), on the property limiting its use only to non-residential purposes
2. Prohibiting land-disturbing activities without prior written approval from DNREC
3. Requiring compliance with a DNREC-approved Operations and Maintenance (O&M) Plan
4. Prohibiting the installation of groundwater wells for drinking water purposes by recording that the site is within the City of Wilmington's establish Groundwater Management Zone (GMZ).

What are the long term plans for the Site after the cleanup? The future commercial use of the site will include a center for leadership and mentoring programs and associated parking areas. Preserving the complete coverage of the site with the building and pavement as well as maintaining the integrity of the parking area are the requirements for the site.

DNREC plans to issue a Certificate of Completion of Remedy for the site after the completion of the proposed remedial action and the redevelopment of the property.

How can I find additional information or comment on the Proposed Plan?

The complete file on the site, including the Brownfields Investigation Report, is available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:

<http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/>

The 20-day public comment period begins on March 26, 2008 and ends at close of business (4:30 pm) on April 14, 2008. Please send written comments to the DNREC office or call Ms. Morgan Price, Project Manager, at 302-395-2600.

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Glossary of Terms Used in this Proposed Plan

Brownfield	Property that is vacant or underutilized because of the perception or presence of an environmental problem.
Certified Brownfield	A brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program.
Contaminant of Concern (COC)	These are potentially harmful substances at concentrations above acceptable levels (eg metals and PAH).
*Exposure	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
Final Plan of Remedial Action	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
Proposed Plan of Remedial Action	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
Risk	Likelihood or probability of injury, disease, or death.

What is a *Proposed Plan*?

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC plans to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan, after all comments made by the public within the comment period of twenty days have been considered and addressed by DNREC.

The Delaware State Legislature passed the Hazardous Substance Cleanup Act (HSCA) in 1990. The Legislature made sure that members of the public would be informed about environmental problems in their own neighborhoods and have a chance to express their opinion concerning the clean up of those environmental problems before DNREC takes action.

After DNREC studies a site, it summarizes the problems there and proposes one or more possible solutions in a Proposed Plan. The Proposed Plan contains enough information to allow lay persons to understand the site. More detailed information can be found in the reports and documents approved by DNREC. All of the documents and reports created by DNREC or consultants during the course of the investigation of the site are available to the public at the offices of DNREC-SIRB or at DNREC's website:

<http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sitefiles.asp> .

DNREC issues the Proposed Plan by advertising it in at least one newspaper in the county where the site is located. The legal notices for the Proposed Plans and the Final Plans usually run on Wednesdays or Sundays in the legal classified section of the News Journal and/or the Delaware State News. The public comment period begins on the day (Wednesday), or the day after (Sunday) the newspaper publishes the legal notice for the Proposed Plan.

DNREC frequently holds public meetings during the comment period. Those meetings are usually held near the site in the evening. Citizens can request a public meeting if DNREC did not already schedule one.

Comments are collected at the public meetings, by phone or in writing. DNREC considers all comments and questions from the public before the Proposed Plan is finalized and adopted as a Final Plan.

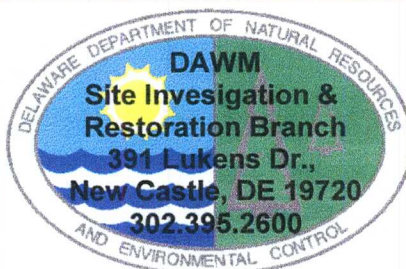
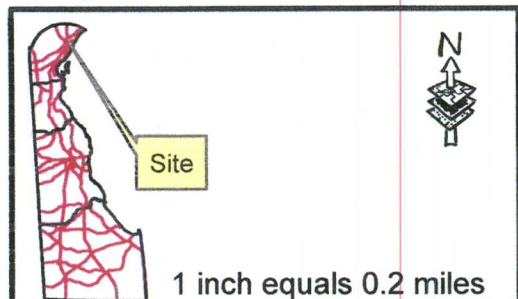
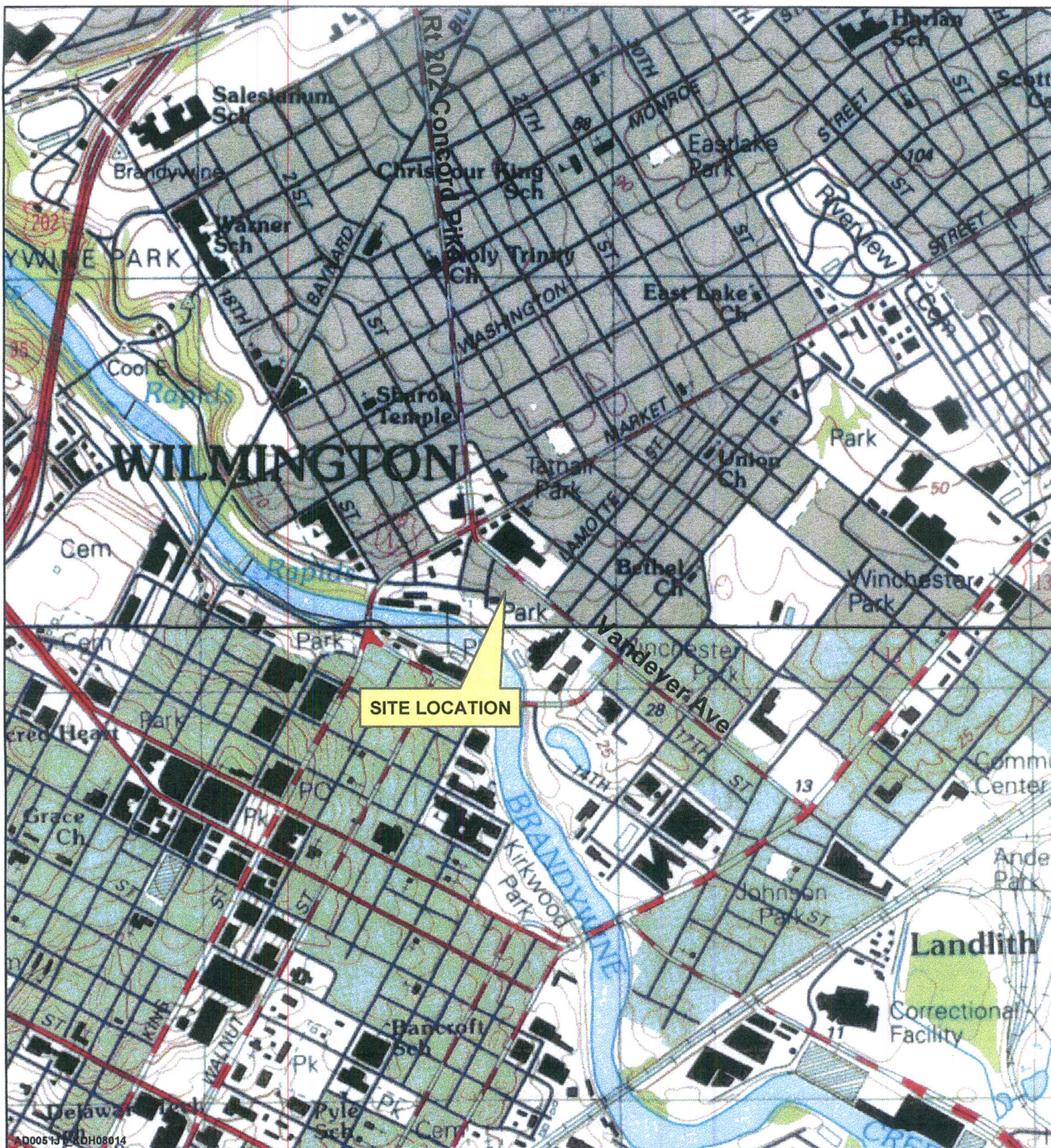


FIGURE 1
38 VANDEYER AVE SITE
WILMINGTON, DE

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FIGURE 2
38 VANDEVER AVE SITE
2007 AERIAL

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